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superior officers and schooled in the rules of conduct to be observed in order that proper discipline may be maintained on shipboard. They shall also be instructed in the fundamentals of ship sanitation as prescribed by law and regulations, and shall be given intensive instruction and practical training in all the operations incident to fire and lifeboat drills, both in port and at

#### § 166.20 Applicants for certificates; when eligible for examination.

Applicants for certificates as able seamen will be eligible for examination after they have completed a course of study as outlined in §§ 166.05, 166.15, and applicants for certificates as qualified members of the engine department after they have completed a course of study as outlined in §§ 166.10, 166.15.

#### PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

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AUTHORITY: 46 U.S.C. 3306, 6101, 8105; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

SOURCE: CGFR 51-11, 16 FR 3218, Apr. 12, 1951, unless otherwise noted.

#### Subpart 167.01—General **Provisions**

#### §167.01-1 Basis and purpose of part.

The rules and regulations in this part are prescribed and apply to public nautical school ships, except vessels of the Navy or Coast Guard. It is the intent of the regulations in this part to provide minimum standards for vessels used as nautical school ships in accordance with the various inspection statutes and to obtain their correct and uniform application. This part is not applicable to civilian nautical school ships.

[CGD 95-028, 62 FR 51216, Sept. 30, 1997]

#### §167.01-5 Application of regulations.

- (a) Regulations in this part contain requirements for the design, construction, inspection, lifesaving equipment, firefighting and fire prevention requirements, special operating requirements and number of persons allowed to be carried on nautical school ships.
- (b) Vessels owned or chartered by the United States Maritime Administration that may be used by or in connection with any nautical school are not normally considered as merchant vessels of the United States and, therefore, are not documented.
- (c) Documented nautical school ships of 500 gross tons or more, on international voyages, shall comply with

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the standards of the International Convention for Safety of Life at Sea, 1974, for cargo vessels.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 69-127, 35 FR 9982, June 17, 1970; CGD 90-008, 55 FR 30663, July 26, 1990]

#### §167.01-7 Ocean or unlimited coastwise vessels on inland and Great Lakes routes.

(a) Vessels inspected and certificated for ocean or unlimited coastwise routes shall be considered suitable for navigation insofar as the provisions of this subchapter are concerned on any inland route, including the Great Lakes.

[CGFR 59-10, 24 FR 3240, Apr. 25, 1959]

### § 167.01-8 Inspection of school ships using gross tonnage criterion.

(a) One of the criteria used for invocation of safety standards is the descriptions of school ships by relative sizes in gross tonnages. When it is determined in accordance with §70.05-20 of this chapter that a particular school ship has a Bureau of Customs' assigned gross register tonnage which is not indicative of the relative physical size of the vessel, the requirements in this part and the manning shall be that applicable to a vessel of the greater relative size.

[CGFR 60-50, 25 FR 7982, Aug. 18, 1960]

### §167.01-10 Effective date of regulations.

(a) The regulations in this part shall be in effect on and after July 1, 1951: *Provided,* That amendments, revisions, or additions shall become effective 90 days after the date of publication in the FEDERAL REGISTER unless the Commandant shall fix a different time.

(b) Amendments to regulations in this part will not be retroactive in effect unless specifically made so at the time the amendments are issued.

### § 167.01-15 Specifications for articles or materials.

Articles of equipment or materials used in the equipment or the construction of vessels, which conform to the specifications of the Navy or Coast Guard or their approved equivalent, may be accepted.

#### §167.01-20 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

(a) Purpose. This section collects and displays the control numbers assigned to information collection and record-keeping requirements in this subchapter by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f), which requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

#### (b) Display.

46 CFR part or section where identified or described	Current OMB con- trol No
§167.15–35 §167.65–38 §167.65–43	2115–0554 2115–0589 2115–0589

[CGD 88-072, 53 FR 34298, Sept. 6, 1988, as amended by CGD 89-037, 57 FR 41824, Sept. 11, 1992]

#### Subpart 167.05—Definitions

#### §167.05-1 Definition of terms.

Certain terms used in the regulations of this part are defined in this subpart.

#### § 167.05-5 Approved.

This term means approved by the Commandant unless otherwise stated.

#### §167.05-10 Commandant.

This term means Commandant of the Coast Guard.

### §167.05-15 Coast Guard District Commander.

This term means an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within the officer's district, which include the inspections, enforcement, and administration of Subtitle II of Title 46, U.S. Code, Title 46 and Title 33 U.S. Code, and regulations issued under these statutes.

[CGD 95-028, 62 FR 51216, Sept. 30, 1997]

#### § 167.05-20 Marine inspector or inspector.

These terms mean any person from the civilian or military branch of the Coast Guard assigned under the superintendence and direction of an Officer in Charge, Marine Inspection, or any other person as may be designated for the performance of duties with respect to the inspections, enforcement, and administration of Subtitle II of Title 46, U.S. Code, Title 46 and Title 33 U.S. Code, and regulations issued under these statutes.

[CGD 95-028, 62 FR 51217, Sept. 30, 1997]

#### §167.05-25 Nautical school ship.

The term *nautical school ship* means a vessel operated by or in connection with a nautical school or an educational institution under Section 13 of the Coast Guard Authorization Act of 1986.

[CGD 84-069, 61 FR 25311, May 20, 1996]

### §167.05-30 Officer in Charge, Marine Inspection.

This term means any person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who, under the superintendence and direction of the Coast Guard District Commander, is in charge of an inspection zone for the performance of duties with respect to the inspections, enforcement, and administration of Subtitle II of Title 46, U.S. Code, Title 46 and Title 33 U.S. Code, and regulations issued under these statutes.

[CGD 95-028, 62 FR 51217, Sept. 30, 1997]

#### §167.05-35 Public nautical school.

The term *public nautical school* means any school or branch thereof operated by any State or political subdivision thereof or a school operated by the United States Maritime Administration that offers instruction for the primary purpose of training for service in the merchant marine.

[CGD 84-069, 61 FR 25311, May 20, 1996]

### Subpart 167.10—Enforcement and Right of Appeal

#### §167.10-1 Enforcement.

The Officer in Charge, Marine Inspection, is responsible for the performance of duties within the officer's jurisdiction with respect to inspection of nautical school ships.

[CGD 95-028, 62 FR 51217, Sept. 30, 1997]

#### §167.10-50 Right of appeal.

Any person directly affected by a decision or action taken under this part, by or on behalf of the Coast Guard, may appeal therefrom in accordance with subpart 1.03 of this chapter.

[CGD 88-033, 54 FR 50381, Dec. 6, 1989]

#### Subpart 167.15—Inspections

#### §167.15-1 Inspections required.

- (a) Before a vessel may be used as a nautical school ship, it shall be inspected by the Coast Guard to determine that the hull, boilers, machinery, equipment and appliances comply with the regulations in this part.
- (b) Every nautical school ship subject to the regulations in this part shall be inspected annually, or oftener if necessary, by the Coast Guard to determine that the hull, boilers, machinery, equipment and appliances comply with the regulations in this part.
- (c) Nautical school ships while laid up and dismantled and out of commission are exempt from any or all inspections required by law or regulations in this part.

### §167.15-5 Authority of marine inspectors.

Marine inspectors may at any time lawfully inspect any nautical school ship.

### $\S 167.15-10$ Application for annual inspection.

Application in writing for the annual inspection of every nautical school ship required to be inspected by law and the regulations in this part shall be made by the master, owner, or agent to the Officer in Charge, Marine Inspection,

#### § 167.15-15

at any local Marine Inspection Office, U.S. Coast Guard, where the nautical school ship may be operating. The application shall be on Form CG 3752, Application for Inspection of U.S. Vessel, which requires information on name and type of vessel, nature of employment and route in which to be operated, place where and date when the vessel may be inspected, and that no other application has been made to any Officer in Charge, Marine Inspection, since the issuance of the last valid certificate of inspection.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 64-19, 29 FR 7361, June 5, 1964]

# §167.15-15 Application for inspection of a new nautical school ship or a conversion of a vessel to a nautical school ship.

Prior to the commencement of the construction of a new nautical school ship, or a conversion of a vessel to a nautical school ship, application for the approval of contract plans and specifications and for a certificate of inspection shall be made in writing by the owner or agent to the Officer in Charge, Marine Inspection, at the nearest local Marine Inspection Office, U.S. Coast Guard.

### §167.15-20 Inspections of nautical school ships.

At each annual inspection, or oftener if deemed necessary, the inspector will inspect the hull, boilers, machinery, equipment, and appliances generally for compliance with the regulations in this subpart and in addition will inspect and test certain specific items as specifically set forth in this part.

### §167.15-25 Inspection standards for hulls, boilers and machinery.

Except as otherwise provided by law or regulations in this subpart, the following standards shall be accepted as standard by the inspectors:

(a) American Bureau of Shipping "Rules for Building and Classing Steel Vessels" regarding the construction of hulls, boilers and machinery in effect on the date of inspection. These rules may be purchased from the American Bureau of Shipping, New York, N.Y.

(b) U. S. Navy Standard Construction Specification in effect on the date of inspection.

(c) U. S. Coast Guard Standard Construction Specification in effect on the date of inspection.

### §167.15-27 Definitions relating to hull examinations.

As used in this part-

(a) Drydock examination means hauling out a vessel or placing a vessel in a drydock or slipway for an examination of all accessible parts of the vessel's underwater body and all through-hull fittings, sea chests, sea valves, sea strainers, and valves for the emergency bilge suction.

(b) Internal structural examination means an examination of the vessel while afloat or in drydock and consists of a complete examination of the vessel's main strength members, including the major internal framing, the hull plating, voids, and ballast tanks, but not including cargo or fuel oil tanks.

[CGD 84-024, 52 FR 39655, Oct. 23, 1987, as amended at 53 FR 32232, Aug. 24, 1988]

### § 167.15-28 Inspection of lifesaving appliances and arrangements.

The inspection of lifesaving appliances and arrangements must be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

[CGD 84-069, 61 FR 25311, May 20, 1996]

## §167.15-30 Drydock examination and internal structural examination intervals

- (a) Except as provided for in paragraphs (b) through (e) of this section, each vessel must undergo drydock and internal structural examinations as follows:
- (1) Vessels that operate in salt water must undergo two drydock and two internal stuctural examinations within any five year period. No more than three years may elapse between any two examinations.
- (2) Vessels that operate in fresh water at least six months in every 12 month period since the last drydock examination must undergo drydock and internal structural examinations at intervals not to exceed five years.

- (b) Vessels with wooden hulls must undergo two drydock and two internal structural examinations within any five year period regardless of the type of water in which they operate. No more than three years may elapse between any two examinations.
- (c) If, during an internal structural examination damage or deterioration to the hull plating or structural members is discovered, the Officer in Charge, Marine Inspection, may require the vessel to be drydocked or otherwise taken out of service to further assess the extent of the damage and to effect permanent repairs.
- (d) Each vessel which has not met with the applicable examination schedules in paragraphs (a) through (c) of this section because it is on a voyage, must undergo the required examinations upon completion of the voyage.
- (e) The Commandant (G–MOC) may authorize extensions to the examination intervals specified in paragraphs (a) and (b) of this section.

[CGD 84-024, 52 FR 39655, Oct. 23, 1987, as amended at 53 FR 32232, Aug. 24, 1988; CGD 95-072, 60 FR 50467, Sept. 29, 1995; CGD 96-041, 61 FR 50734, Sept. 27, 1996]

#### §167.15-35 Notice and plans required.

- (a) The master, owner, operator, or agent of the vessel shall notify the Officer in Charge, Marine Inspection, whenever the vessel is to be drydocked regardless of the reason for drydocking.
- (b) Each vessel, except barges, that holds a Load Line Certificate must have on board a plan showing the vessel's scantlings. This plan must be made available to the Coast Guard marine inspector whenever the vessel undergoes a drydock examination or internal structural examination or whenever repairs are made to the vessel's hull.
- (c) Each barge that holds a Load Line Certificate must have a plan showing the barge's scantlings. The plan need not be maintained on board the barge but must be made available to the Coast Guard marine inspector whenever the barge undergoes a drydock examination or internal structural exam-

ination or whenever repairs are made to the barge's hull.

[CGD 84-024, 52 FR 39655, Oct. 23, 1987]

### §167.15-40 Integral fuel oil tank examinations—T/ALL.

- (a) Each fuel oil tank with at least one side integral to the vessel's hull and located within the hull ("integral fuel oil tank") is subject to inspection as provided in this section. The owner or operator of the vessel shall have the tanks cleaned out and gas freed as necessary to permit internal examination of the tank or tanks designated by the marine inspector. The owner or operator shall arrange for an examination of the fuel tanks of each vessel during an internal structural examination at intervals not to exceed five years.
- (b) Integral non-double-bottom fuel oil tanks need not be cleaned out and internally examined if the marine inspector is able to determine by external examination that the general condition of the tanks is satisfactory.
- (c) Double-bottom fuel oil tanks on vessels less than 10 years of age need not be cleaned out and internally examined if the marine inspector is able to determine by external examination that the general condition of the tanks is satisfactory.
- (d) Double-bottom fuel oil tanks on vessels 10 years of age or older but less than 15 years of age need not be cleaned out and internally examined if the marine inspector is able to determine by internal examination of at least one forward double-bottom fuel oil tank, and by external examination of all other double-bottom fuel oil tanks on the vessel, that the general condition of the tanks is satisfactory.
- (e) All double-bottom fuel oil tanks on vessels 15 years of age or older need not be cleaned out and internally examined if the marine inspector is able to determine by internal examination of at least one forward, one amidships, and one aft double-bottom fuel oil tank, and by external examination of all other double-bottom fuel oil tanks on the vessel, that the general condition of the tanks is satisfactory.

[CGD 84-024, 52 FR 39655, Oct. 23, 1987, as amended at 53 FR 32232, Aug. 24, 1988]

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#### §167.15-50 Tailshaft examinations.

Tailshaft examinations on nautical school ships must conform with the examination requirements in part 61 of this chapter.

[CGD 84-024, 52 FR 39655, Oct. 23, 1987]

#### Subpart 167.20—Hull Requirements, Construction and Arrangement of Nautical School Ships

#### §167.20-1 Construction.

Except as otherwise provided by law or regulations in this subpart, the following standards for construction are acceptable.

- (a) American Bureau of Shipping "Rules for Building and Classing Steel Vessels" regarding the construction of hulls, boilers and machinery in effect on the date of inspection. These rules may be purchased from the American Bureau of Shipping, New York, N.Y.
- (b) U. S. Navy Standard Construction Specification in effect on the date of inspection.
- (c) U. S. Coast Guard Standard Construction Specification in effect on the date of inspection.

#### §167.20-7 Subdivision and stability.

Each vessel must meet the applicable requirements in Subchapter S of this chapter.

[CGD 79-023, 48 FR 51010, Nov. 4, 1983]

#### §167.20-10 Means of escape.

(a) On all nautical school ships where the arrangements will possibly permit, all inclosures where persons may be quartered, or where anyone may be employed, shall be provided with not less than two avenues of escape, so located that if one of such avenues is not available another may be.

### §167.20-15 Scupper, sanitary and similar discharges.

(a) All scupper, sanitary, and other similar discharges which lead through the ship's hull shall be fitted with efficient means for preventing the ingress of water in the event of a fracture of such pipes. The requirements do not apply to the discharges in the machin-

ery space connected with the main and auxiliary engines, pumps, etc.

### §167.20-17 Bilge pumps, bilge piping and sounding arrangements.

The number, capacity, and arrangement of bilge pumps and bilge piping shall be in accordance with the requirements for cargo vessels contained in parts 50 to 61 of Subchapter F (Marine Engineering) of this chapter. Sounding pipes shall be fitted in each compartment, except those accessible at all times. The main and secondary drain systems installed in accordance with U.S. Navy or U.S. Coast Guard Construction Specifications shall be accepted as meeting the intent of this section.

[CGFR 52-43, 17 FR 9542, Oct. 18, 1952]

#### §167.20-35 Liquid ballast.

When water ballasting of fuel tanks is necessary, such oily ballast shall not be subsequently discharged overboard within any of the prohibited zones as defined by the Oil Pollution Act, 1961 (33 U.S.C. 1011), except through oily water separators which meet the requirements in 33 CFR 155.330 through 155.380, or directly into sludge barges or shore facilities, or other approved means.

[CGFR 62-17, 27 FR 9046, Sept. 11, 1962, as amended by CGD 95-072, 60 FR 50468, Sept. 29, 1995]

#### Subpart 167.25—Marine Engineering

### § 167.25-1 Boilers, pressure vessels, piping and appurtenances.

- (a) Except as otherwise provided by law or regulations in this subpart, all vessels constructed or reconverted to use as nautical school ships on or after July 1, 1951, shall conform with one of the following standards for boilers, pressure vessels, piping and appurtenances:
- (1) Marine engineering regulations in parts 50 to 63, inclusive, of Subchapter F (Marine Engineering) of this chapter.
- (2) Navy Standard Construction Specifications in effect at time of construction or conversion.

(3) U.S. Coast Guard Standard Construction Specifications in effect at time of construction or conversion.

(b) The boilers, pressure vessels, and appurtenances shall be inspected initially under the provisions of part 52 of Subchapter F (Marine Engineering) of this chapter. All alterations, replacements or repairs on nautical school ships shall conform to the applicable standards in paragraph (a) of this section insofar as practicable.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 68-82, 33 FR 18908, Dec. 18, 1968]

## § 167.25-5 Inspection of boilers, pressure vessels, piping and appurtenances.

The inspection of boilers, pressure vessels, piping and appurtenances shall be in accordance with the applicable regulations in parts 50 to 63, inclusive, of Subchapter F (Marine Engineering) of this chapter, insofar as they relate to tests and inspection of cargo vessels.

[CGFR 68-82, 33 FR 18908, Dec. 18, 1968]

### Subpart 167.30—Repairs or Alterations

### §167.30-1 Notice of repairs or alterations required.

(a) It shall be the duty of the master, owner, or agent to notify the nearest Officer in Charge, Marine Inspection, whenever repairs or alterations are required, or will be made on a nautical school ship.

(b) Whenever a nautical school ship is placed upon the dock, it shall be the duty of the master, owner or agent to report the same to the Officer in Charge, Marine Inspection, so that a thorough inspection may be made by the Coast Guard to determine what is necessary to make such a nautical school ship seaworthy, if the condition or age of the nautical school ship, in the judgment of the Officer in Charge, Marine Inspection, renders such examination necessary.

### § 167.30-5 Proceeding to another port for repairs.

(a) The Officer in Charge, Marine Inspection, may issue a permit to proceed to another port for repairs, if in his

judgment it can be done with safety. In the issuance of such a permit the Officer in Charge, Marine Inspection, will state upon its face, the conditions upon which it is granted.

(b) When a nautical school ship obtains a permit from the Officer in Charge, Marine Inspection, to go to another port for repairs, the Officer in Charge, Marine Inspection, shall so notify the Coast Guard District Commander, and state the repairs to be made. The Coast Guard District Commander shall notify the Coast Guard District Commander of the district where such repairs are to be made, furnishing him a copy of the report indicating the repairs ordered.

### §167.30-10 Special operating requirements.

Inspection and testing required when making alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions are as follows:

- (a) The provisions of "Standard for the Control of Gas Hazards on Vessels to be Repaired", NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269 shall be used as a guide in conducting the inspections and issuance of certificates required by this section.
- (b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions shall be made:
- (1) Within or on the boundaries of cargo tanks which have been used to carry combustible liquids or chemicals in bulk; or,
- (2) Within spaces adjacent to cargo tanks which have been used to carry Grade D combustible liquid cargo, except where the distance between such cargo tanks and the work to be performed is not less than twenty-five (25) feet; or,
- (3) Within or on the boundaries of fuel tanks; or,
- (4) To pipe lines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks.

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- (c) Such inspections shall be made and evidenced as follows:
- (1) In ports or places in the United States or its territories and possessions, the inspection shall be made by a marine chemist certificated by the National Fire Protection Association; however, if the services of such certified marine chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative, shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicates that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified marine chemist or the authorized person before the work is started. Such qualifications shall include any requirements, as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.
- (2) When not in such a port or place, and a marine chemist or such person authorized by the Officer in Charge, Marine Inspection, is not reasonably available, the inspection shall be made by the senior officer present and a proper entry shall be made in the vessel's logbook.
- (d) It shall be the responsibility of the senior officer present to secure copies of certificates issued by the certified marine chemist or such person authorized by the Officer in Charge, Marine Inspection. It shall be the responsibility of the senior officer present, insofar as the persons under his control are concerned, to maintain a safe condition on the vessel by full observance of all qualifications and requirements listed by the marine chemist in the certificate

[CGFR 64–19, 29 FR 7361, June 5, 1964, as amended by CGD 95–072, 60 FR 50468, Sept. 29, 1995]

### Subpart 167.35—Lifesaving Equipment

#### §167.35-1 General.

Lifesaving appliances and arrangements on nautical school ships must be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

[CGD 84-069, 61 FR 25311, May 20, 1996]

### Subpart 167.40—Certain Equipment Requirements

#### §167.40-1 Electrical installations.

- (a) Except as otherwise provided by law or regulation in this part, the electrical equipment may be considered acceptable if it complies with the requirements covered by any one of the following:
- (1) U.S. Navy Standard Construction Specifications currently in effect.
- (2) U. S. Coast Guard electrical engineering requirements in Subchapter J (Electrical Engineering) of this chapter.
- (3) American Institute of Electrical Engineers Standard No. 45, 1945 or 1948 Revision. These standards may be purchased from the American Institute of Electrical Engineers, New York, N. Y.
- (b) Changes or alterations in the electrical installations of vessels now in service shall be in accordance with standards set forth in paragraph (a) of this section.
- (c) Special attention shall be given by the inspectors in the examination of present installation to see that it is of such nature as to preclude any danger of fire, giving particular attention to wiring which is carried through wooden bulkheads, partitions, etc.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 52-43, 17 FR 9543, Oct. 18, 1952]

#### §167.40-5 Alarm bells.

All nautical school ships over 100 gross tons shall have all sleeping accommodations, public spaces, and machinery spaces equipped with a sufficient number of alarm bells so located as to warn all occupants. The system shall operate from a continuous source of electric energy capable of supplying

the system for a period of at least 8 hours without being dependent upon the main, auxiliary or emergency generating plants. Each bell shall produce a signal of a tone distinct from that of other bell signals in the vicinity and shall be independently fused, with each of these fuses located above the bulkhead deck. The bells shall be controlled by a manually-operated contact maker located in the pilothouse. The characteristics of the contact maker shall be such that it possesses:

- (a) Positive contact;
- (b) Watertightness (when located in open spaces subject to weather);
- (c) Means whereby its electrically open or closed position can be determined by sense of touch;
- (d) Means to affect a make-or-break circuit for signaling; and
- (e) Self-maintaining contacts.

### §167.40-7 Voice tubes, telephone, and telegraph systems.

- (a) Each nautical school ship shall be fitted with an efficient means of communication between the pilothouse and engine room. This may be by bell signals with voice tubes, telephone, or telegraph systems.
- (b) A voice tube or telephone system between the radio room and the navigating bridge shall be provided when the nautical school ship is equipped with a radio installation.
- (c) A voice tube or telephone system between the pilothouse and emergency steering station shall be provided when the nautical school ship is equipped with an emergency steering station.

### §167.40-20 Deep-sea sounding apparatus.

Nautical school ships shall be equipped with an efficient or electronic deep-sea sounding apparatus. The electronic deep-sea sounding apparatus required shall be installed, kept in working order, and ready for immediate use.

[CGFR 58-10, 23 FR 4686, June 26, 1958, as amended by CGD 75-074, 42 FR 5964, Jan. 31, 1977; CGD 95-027, 61 FR 26010, May 23, 1996]

#### §167.40-25 Signaling lamp.

Nautical school ships of over 150 gross tons shall be equipped with an efficient signaling lamp. This lamp shall be permanently fixed above the bridge

and equipped with a Fresnel lens and high-speed bulb, operated by a weather-proof key, fitted with a suitable condenser. The lamp shall be so connected that it can be operated from the normal source of the nautical school ship's current, the emergency source, and other emergency batteries if provided.

#### §167.40-30 Guards and rails.

On nautical school ships all exposed and dangerous places, such as gears and machinery shall be properly protected with covers, guards, or rails, in order that the danger of accidents may be minimized. On nautical school ships equipped with radio (wireless) the leadins shall be efficiently incased or insulated to insure the protection of persons from accidental shock. Such leadins shall be located so as not to interfere with the launching of lifeboats and life rafts.

#### §167.40-40 Radar.

All mechanically propelled vessels of 1,600 gross tons and over in ocean or coastwise service must be fitted with a marine radar system for surface navigation. Facilities for plotting radar readings must be provided on the bridge.

[CGFR 75-074, 42 FR 5964, Jan. 31, 1977]

### §167.40-45 Magnetic compass and gyrocompass.

- (a) All mechanically propelled vessels in ocean or coastwise service must be fitted with a magnetic compass.
- (b) All mechanically propelled vessels of 1,600 gross tons and over in ocean or coastwise service must be fitted with a gyrocompass in addition to the magnetic compass.
- (c) Each vessel must have an illuminated repeater for the gyrocompass required under paragraph (b) of this section that is at the main steering stand unless the gyrocompass is illuminated and is at the main steering stand.

[CFD 75-074, 42 FR 5964, Jan. 31, 1977]

#### Subpart 167.43—Work Vests

SOURCE: CGFR 59-22, 24 FR 4962, June 18, 1959, unless otherwise noted.

#### § 167.43-1

#### §167.43-1 Application.

(a) Provisions of this subpart shall apply to all vessels inspected and certificated in accordance with this subchapter.

### § 167.43-5 Approved types of work vests.

- (a) Each buoyant work vest carried under the permissive authority of this section must be approved under—
- (1) Subpart 160.053 of this chapter; or (2) Subpart 160.077 of this chapter as
- (2) Subpart 160.077 of this chapter as a commercial hybrid PFD.

[CGD 78-174A, 51 FR 4351, Feb. 4, 1986]

#### §167.43-10 Use.

(a) Approved buoyant work vests are considered to be items of safety apparel and may be carried aboard vessels to be worn by crew members when working near or over the water under favorable working conditions. They shall be used under the supervision and control of designated ship's officers. When carried, such vests shall not be accepted in lieu of any portion of the required number of approved life preservers and shall not be substituted for the approved life preservers required to be worn during drills and emergencies.

#### §167.43-15 Shipboard stowage.

- (a) The approved buoyant work vests shall be stowed separately from the regular stowage of approved life preservers.
- (b) The locations for the stowage of work vests shall be such as not to be easily confused with that for approved life preservers.

#### §167.43-20 Shipboard inspections.

(a) Each work vest shall be subject to examination by a marine inspector to determine its serviceability. If found to be satisfactory, it may be continued in service, but shall not be stamped by a marine inspector with a Coast Guard stamp. If a work vest is found not to be in a serviceable condition, then such work vest shall be removed from the vessel. If a work vest is beyond repair, it shall be destroyed or mutilated in the presence of a marine inspector so as to prevent its continued use as a work vest.

### § 167.43-25 Additional requirements for hybrid work vests.

- (a) In addition to the other requirements in this subpart, commercial hybrid PFD's must be—
- (1) Used, stowed, and maintained in accordance with the procedures set out in the manual required for these devices by §160.077-29 of this chapter and any limitations(s) marked on them; and
- (2) Of the same or similar design and have the same method of operation as each other hybrid PFD carried on board.

[CGD 78-174A, 51 FR 4351, Feb. 4, 1986]

#### Subpart 167.45—Special Firefighting and Fire Prevention Requirements

### §167.45-1 Steam, carbon dioxide, and halon fire extinguishing systems.

- (a) General requirements. (1) Nautical school ships shall be provided with an inert-gas fire-extinguishing system when required.
- (2) All nautical school ships carrying combustible cargo in the holds, between decks, or other closed cargo compartments shall be equipped with means for extinguishing fire in such compartments by the use of any inertgas fire-extinguishing system approved by the Coast Guard or Navy. However, in specific cases where by reason of the design, such compartments are normally accessible and considered to be part of the working or living quarters, a water sprinkling system may be installed in lieu of an inert-gas fire-extinguishing system. On such vessels contracted for prior to January 1, 1962, a steam smothering system may be accepted in lieu of the inert gas system for the protection of cargo holds, paint lockers, and similar spaces. However, although existing steam smothering systems may be repaired, replaced, or extended, no new systems contracted for on or after January 1, 1962, will be permitted.
- (3) Cabinets, boxes, or casings inclosing manifolds or valves shall be distinctly marked in painted letters about 3 inches in height, "Steam Fire Apparatus," or "CO<sub>2</sub> Fire Apparatus," as the case may be.

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(4) Steam or gas piping fitted for extinguishing fire shall not be used for any other purpose except that it may be used for fire-detecting purposes.

- (5) Pipes for conveying steam from the boilers for the purpose of extinguishing fire shall not be led into the cabins, other living spaces, or working spaces. Pipes for conveying carbon dioxide or other extinguishing vapors for the purpose of extinguishing fire shall not be led into the cabins or other living spaces.
- (6) Steam smothering lines shall be tested with at least 50 pounds air pressure with ends of the smothering lines capped, or by blowing steam through the lines, and a survey made for detecting corrosion and defects, using the hammer test or such other means as may be necessary.
- (7) At annual inspections, all carbon dioxide  $(CO_2)$  cylinders, whether fixed or portable, shall be examined externally and replaced if excessive corrosion is found; and all cylinders shall also be checked by weighing to determine contents and if found to be more than 10 percent under required contents of carbon dioxide, the same shall be recharged.
- (8) Carbon dioxide and halon cylinders carried on board nautical school ships must be tested and marked in accordance with the requirements of §§ 147.60 and 147.65 of this chapter.
- (9) Regarding the limitations on the use of steam smothering in subparagraph (2) of this paragraph, this does not preclude the introduction of steam into such confined spaces as boiler casings or into tanks for steaming out purposes. Such installations are not to be considered as part of any required fire extinguishing system.
- (b) Steam systems. (1) As noted in subparagraph (a)(2) of this section, steam smothering systems are not permitted on nautical school ships contracted for on or after January 1, 1962, nor for new installations on vessels contracted for prior to that date. Where steam smothering systems are installed, the provisions of this paragraph shall be met.
- (2) Steam for fire-extinguishing systems shall be available at a suitable pressure from the main boilers or a donkey or auxiliary boiler.

- (3) The pipe lines shall be led from not more than three stations in easily accessible locations on the weather deck to each cargo hold, cargo 'tweendecks, or other closed cargo compartments, and to each cargo-oil deep tank, lamp locker, oil room, and like compartments, which lamp locker, oil room, and like compartments, shall be wholly and tightly lined with metal. The steam connections to the lamp lockers, oil rooms, and like compartments may be taken from the nearest steam supply line, independent of the extinguishing manifolds. In lamp lockers, oil rooms, and like compartments, adequate means may be provided for ventilation if suitable dampers capable of being operated from outside the spaces are fitted in each vent duct.
- (4) Each pipe in the extinguishing manifolds shall be fitted with a shut-off valve plainly and permanently marked to indicate into which compartment it discharges. This requirement also applies to independent extinguishing lines.
- (5) Manifold steam supply pipes shall be fitted with master valves at the manifolds, and provision shall be made for draining the manifold and individual lines to protect them against freezing. If the manifolds are located on an open deck, they shall be enclosed in a metal box.
- (6) The minimum diameter of any steam fire-extinguishing pipe to a cargo hold, cargo 'tween-decks, other closed cargo compartments, or cargo-oil deep tank shall be one inch, the size and number of pipes to be governed by the size of the compartment. The minimum diameter of any steam fire-extinguishing pipe to a lamp locker, oil room, or like compartments, shall be three-fourths of an inch.
- (c) Inert-gas systems. (1) When a carbon dioxide  $(CO_2)$  smothering system is fitted in the cargo hold, cargo 'tween-decks, or other closed cargo compartments, or cargo-oil deep tanks, the quantity of carbon dioxide shall be sufficient to give a gas saturation of 30 percent of the gross volume of the largest cargo hold. The quantity in pounds of carbon dioxide required may be determined approximately by the following formula:

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$$W = \frac{L \times B \times D}{30} \tag{1}$$

where:

W=the weight of CO<sub>2</sub> required, in pounds. L=the length of the hold, in feet.

*B*=the mean breadth of the hold, in feet, D=the depth from tank top or flat forming

lower boundary to top of uppermost space in which freight may be carried, in

When a carbon dioxide (CO<sub>2</sub>) smothering system is fitted in the lamp locker, oil room, or like compartments, the quantity in pounds of carbon dioxide required may be determined by dividing the gross volume of the space by a factor of 22. Lamp lockers, oil rooms, and like compartments, in all classes of vessels, shall be wholly and tightly lined with metal. The whole charge of gas shall be capable of being released simultaneously by operating one valve and control, and all cylinders shall be completely discharged in not more than two minutes.

(3) Pipes used for supplying carbon dioxide to the cargo holds, cargo 'tween-decks, other closed cargo compartments, and cargo-oil deep tanks shall be not less than three-fourths inch inside diameter. Pipes used for supplying carbon dioxide to lamp lockers, oil rooms, and like compartments shall not be less than one-half inch inside diameter.

(4) The control(s) releasing the inert gas shall be located in a position(s) outside the space(s) protected and shall be readily accessible when the vessel is being navigated. All valves shall be permanently marked to indicate into which compartment they discharge. A space which is protected by a carbon dioxide extinguishing system, and is normally accessible to crew while the nautical school ship is being navigated shall be fitted with an approved audible alarm in such space, which will be automatically sounded when the carbon dioxide is admitted to the space.

(5) Provisions shall be made to prevent the admission of air into the lower parts of cargo holds, cargo 'tween-decks, and other closed cargo compartments while the inert-gas system is in operation.

(6) Cylinders, piping, and controls for the inert-gas system shall be protected from damage and shall be securely fastened and supported.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 54–46, 19 FR 8708, Dec. 18, 1954; CGFR 61–15, 26 FR 9303, Sept. 30, 1961; CGFR 65-9, 30 FR 11494, Sept. 8, 1965; CGD 84-044, 53 FR 7752, Mar. 10, 1988]

#### §167.45-5 Steam fire pumps or their equivalent.

(a) All nautical school ships shall be equipped with fire pumps.

(b) Nautical school ships of 100 gross tons and under shall be equipped with one hand fire pump with a pump-cylinder capacity not less than 100 cubic inches, or a power-driven pump of equivalent discharge capacity.

(c) Nautical school ships over 100 gross tons shall be equipped with fire

pumps and piping as follows:

(1) All nautical school ships shall be provided with powerful pumps available for use as fire pumps. When of less than 1,000 gross tons it shall have 1, and when larger it shall have at least 2 independently driven pumps connected to the fire main. Each pump shall be capable of delivering two powerful jets of water simultaneously from the highest outlets on the fire main at a Pitot tube pressure of approximately 50 pounds per square inch.

(2) On oil-burning nautical school ships, where two pumps are required, they may be located in the same compartment, if the compartment is equipped with an approved fixed carbon

dioxide extinguishing system.

(d) Outlets from the fire mains shall be of a sufficient number and so arranged that any part of the living quarters, weather decks and any part of cargo decks, accessible to crew, while the nautical school ship is being navigated, may be reached with a single 50foot length of hose. Outlets within accommodations and service spaces adjacent thereto shall comply with the above or they may be so arranged that any part may be reached with a single 75-foot length of hose provided a siamese connection is fitted at each outlet. Where the fire main is located on an exposed deck, branches shall be provided so that the hose connections necessary to comply with the foregoing be distributed on both sides of the nautical school ship. The fire hose shall be connected to the outlet at all times, except on open decks where the location of the fire hydrants is such that no protection is afforded for the hose in heavy weather. The fire hose may be temporarily removed from the hydrant when it will interfere with the handling of cargo.

- (e) Outlet openings shall have a diameter of not less than 1½ inches and shall be fitted with suitable hose connections and spanners. The arrangement of the fire hydrant shall be limited to any position from the horizontal to the vertical pointing downward, so that the hose will lead downward or horizontally, in order to minimize the possibility of kinking. In no case will a hydrant arranged in a vertical position with the outlet pointing upward be accepted.
- (f) Fire pumps shall be fitted on the discharge side with relief valves set to relieve at 25 pounds higher than the pressure necessary to maintain the requirements of paragraph (c)(1) of this section and a pressure gage to indicate the pressure on the fire main. If the fire pumps operating under shut-off conditions are not capable of producing a pressure exceeding 125 pounds per square inch, the relief valve may be omitted.
- (g) Each section of fire hose used after January 1, 1980 must be lined commercial fire hose that conforms to Underwriters' Laboratories, Inc. Standard 19 or Federal Specification ZZ-H-451E. Hose that bears the label of Underwriters' Laboratories, Inc. as lined fire hose is accepted as conforming to this requirement. Each section of replacement fire hose or any section of new fire hose placed aboard a vessel after January 1, 1977 must also conform to the specification required by this paragraph.
- (h) Each fire hydrant must have at least one length of firehose. Each firehose on the hydrant must have a combination solid stream and water spray firehose nozzle that is approved under subpart 162.027 of this chapter.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 60-36, 25 FR 10642, Nov. 5, 1960; CGD 74-60, 41 FR 43152, Sept. 30, 1976; CGD 76-086, 44 FR 2394, Jan. 11, 1979]

#### §167.45-10 Couplings on fire hose.

The couplings on fire hose shall be of brass, copper, or composition material. All hydrants shall be provided with suitable spanners.

#### §167.45-15 Capacity of pipes and hose.

The capacity of the pipes and hose leading from the pumps shall in no case be less than that of the discharge opening of the pump: *Provided, however,* That the pipe and hose shall in no instance be less than 1½ inches in internal diameter.

## § 167.45-20 Examination and testing of pumps and fire-extinguishing equipment.

The inspectors will examine all pumps, hose, and other fire apparatus and will see that the hose is subjected to a pressure of 100 pounds to the square inch at each annual inspection and that the hose couplings are securely fastened.

### §167.45-25 Fire mains and hose connections.

All pipes used as mains for conducting water from fire pumps on nautical school ships shall be of steel, wrought iron, brass, or copper with wrought iron brass, or composition hose connections

### § 167.45-30 Use of approved fire-fighting equipment.

Portable fire extinguishers or fire-extinguishing systems which conform to the specifications of the Navy or Coast Guard, or their approved equivalent, may be accepted for use on nautical school ships.

## § 167.45-40 Fire-fighting equipment on nautical school ships using oil as fuel.

Steam-propelled nautical school ships burning oil for fuel shall be fitted with the fire-fighting equipment of the following type and character:

(a) In each boiler room and in each of the machinery spaces of a nautical school ship propelled by steam, in which a part of the fuel-oil installation is situated, 2 or more approved fire extinguishers of the foam type of not less than 9.5 liters (2½ gallons) each or 2 or more approved fire extinguishers of the

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carbon dioxide type of not less than 33 kilograms (15 pounds) each must be placed where accessible and ready for immediate use. On a nautical school ship of 1,000 gross tons and under, only 1 of the fire extinguishers may be required.

(b) In boiler and machinery spaces, at least 2 fire hydrants must have a fire-hose of a length that allows each part of the boiler and machinery spaces to be reached by water from a combination solid stream and water spray fire-hose nozzle.

(c) Each firehose under paragraph (b) of this section must have a combination solid stream and water spray firehose nozzle that meets subpart 162.027 of this chapter. Combination nozzles and low-velocity water spray applicators previously approved under subpart 162.027 of this chapter may remain so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(d) On every steam propelled nautical school ship of over 1,000 gross tons having one boiler room there shall be provided one fire extinguisher of the foam type of at least 40 gallons rated capacity or one carbon dioxide (CO2) extinguisher of at least 100 pounds. If the nautical school ship has more than one boiler room, an extinguisher of the above type shall be provided in each boiler room. On every steam propelled nautical school ship of 1,000 gross tons and under, foam type fire extinguishers of at least 20 gallons rated capacity or carbon dioxide (CO2) extinguishers of at least 50 pounds shall be used. Extinguishers fitted shall be equipped with suitable hose and nozzles on reels or other practicable means easy of access, and of sufficient length to reach any part of the boiler room and spaces containing oil-fuel pumping units.

(e) All nautical school ships propelled by internal-combustion engines shall be equipped with the following foam type or carbon dioxide type fire extinguishers in the machinery spaces:

(1) One approved 12-gallon foam-type extinguisher or one approved 35-pound carbon dioxide type extinguisher.

(2) One approved 2½-gallon foamtype, or one approved 15-pound carbon dioxide type extinguisher for each 1,000 B. H. P. of the main engines, or frac-

tion thereof. The total number of fire extinguishers carried shall not be less than two and need not exceed six.

(3) When a donkey boiler fitted to burn oil as fuel is located in the machinery space, there shall be substituted for the 12-gallon foam type or 35-pound carbon dioxide type fire extinguisher required either one 40-gallon foam type or one 100-pound carbon dioxide type fire extinguisher.

(f) In this section any reference to an approved fire extinguisher means either approved by the Coast Guard or the Navy.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGD 76-086, 44 FR 2394, Jan. 11, 1979; CGD 95-027, 61 FR 26010, May 23, 1996]

### §167.45-45 Carbon dioxide fire-extinguishing system requirements.

(a) When a carbon dioxide (CO<sub>2</sub>) smothering system is fitted in the boiler room, the quantity of carbon dioxide carried shall be sufficient to give a gas saturation of 25 percent of the gross volume of the largest boiler room from tank top to top of the boilers. Top of the boilers is to be considered as the top of the shell of a Scotch or leg type of boiler, and the top of the casing or drum, whichever is the higher, on water-tube boilers. The quantity of carbon dioxide required may be determined approximately by the following formula:

$$W = \frac{L \times B \times D}{36} \tag{1}$$

where:

W= the weight of  $CO_2$  required in pounds. L= the length of the boiler room in feet. B= the breadth of the boiler room in feet. D= the distance in feet from tank top or flat forming lower boundary to top of boilers.

(b) When a carbon dioxide (CO<sub>2</sub>) smothering system is fitted in the machinery space of a nautical school ship propelled by internal combustion engines, the quantity of carbon dioxide required may be determined approximately by the following formula:

$$W = \frac{L \times B \times D}{22} \tag{2}$$

where

W=the weight of  $CO_2$  required in pounds. L=the length of machinery space in feet.

B=breadth of the machinery space in feet.
D=distance in feet from tank top or flat forming lower boundary to the underside of deck forming the batch opening.

(c) The whole charge of gas shall be capable of being released simultaneously by operating one valve and control. All cylinders shall be completely discharged in not more than two minutes. The arrangement of the piping shall be such as to give a general and fairly uniform distribution over the entire area protected. An alarm which shall operate automatically with the operation of the system shall be provided to give a warning in the space when the carbon dioxide is about to be released. Provision shall be made to prevent the admission of air into the lower parts of the boiler or engine room while the system is in operation.

### § 167.45-50 Foam smothering system requirements.

(a) When a foam-type system is fitted, its capacity shall be such as to rapidly discharge over the entire area of the bilge (tank top) of the largest boiler room a volume of foam 6 inches deep in not more than 3 minutes. The arrangement of piping shall be such as to give a uniform distribution over the entire area protected.

(b) The foam-type system may be of a type approved by the Navy or Coast Guard. All containers and valves by which the system is operated shall be easily accessible and so placed that control valves and containers will not readily be cut off from use by an outbreak of fire.

### §167.45-60 Emergency breathing apparatus and flame safety lamps.

Each nautical-school ship must be equipped with the following devices:

(a) Two pressure-demand, open circuit, self-contained breathing apparatus, approved by the Mine Safety and Health Administration (MSHA) and by the National Institute for Occupational Safety and Health (NIOSH) and having at a minimum a 30-minute air supply, a full face piece, and a spare charge for each. A self-contained compressed-air breathing apparatus previously approved under part 160, subpart 160.011, of this chapter may continue in use as

required equipment if it was part of the vessel's equipment on November 23, 1992, and as long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) One flame safety lamp approved by the Coast Guard or Navy.

[CGD 86-036, 57 FR 48326, Oct. 23, 1992, as amended by CGD 95-028, 62 FR 51217, Sept. 30, 1997]

### § 167.45-65 Portable fire extinguishers in accommodation spaces.

- (a) All nautical school ships shall be provided with such number of good and efficient portable fire extinguishers approved by the Navy or Coast Guard as follows:
- (1) Nautical school ships less than 150 feet in length shall have at least two fire extinguishers on each passenger deck.
- (2) Nautical school ships 150 feet and over in length shall be provided with at least one fire extinguisher for every 150 linear feet of corridor length or fraction thereof in the spaces occupied by passengers and crew.
- (3) In all public spaces fire extinguishers shall be located not more than 150 feet apart.
- (b) The number of required fire extinguishers is based on the capacity of the ordinary fire extinguisher, which is about 2½ gallons, and no fire extinguisher of larger capacity shall be allowed a greater rating than that of the ordinary fire extinguisher. Fire extinguishers of approved types of less capacity are allowable when their total contents equal the required quantity.

### § 167.45-70 Portable fire extinguishers, general requirements.

- (a) Extra charges shall be carried on board for 50 percent of each size and variety of fire extinguishers provided. If 50 percent of each size and variety of fire extinguishers carried gives a fractional result, extra charges shall be provided for the next largest whole number.
  - (1) The following is an example:

	Extra charges required
ire extinguishers carried:	
1	1
2	1

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Extra cha require	
3	2
4	2
5	3

(2) When the portable fire extinguisher is of such variety that it cannot be readily recharged by the vessel's personnel, one spare unit of the same classification shall be carried in lieu of spare charges for all such units of the same size and variety.

(b) Recharges, particularly the acid, used in charging soda-and-acid type of fire extinguishers, shall be packed in such manner that the filling operation (i.e., in recharging the extinguisher) can be performed without subjecting the person doing the recharging to undue risk of acid burns and shall be contained in Crown stopper type of bottle.

(c) [Reserved]

(d) Fire extinguishers shall be located in such places as in the judgment of the Officer in Charge, Marine Inspection, will be most convenient and serviceable in case of emergency and so arranged that they may be easily removed from their fastenings.

(e) Every fire extinguisher provided shall be examined at each annual inspection to determine that it is still in good condition. Soda-and-acid and foam fire extinguishers shall be tested by discharging the contents, cleaning thoroughly, and then refilling. Carbon dioxide fire extinguishers shall be checked by weighing to determine contents and if found to be more than 10 percent under required contents of carbon dioxide shall be recharged. Pump tank fire extinguishers shall be tested by pumping and discharging the contents, cleaning thoroughly, and then refilling or recharging. Cartridge-operated type fire extinguishers shall be checked by examining the extinguishing agents to determine if in still good condition and by examining the pressure cartridge. If the cartridge end is punctured, or it the cartridge is otherwise determined to have leaked or to be in an unsuitable condition, the pressure cartridge shall be rejected and a new one inserted. Stored pressure type extinguishers shall be checked by determining that the pressure gage is in the operating range, and the full charge of extinguishing agent is in the chamber. The hoses and nozzles of all fire extinguishers shall be inspected to see that they are clear and in good condition.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 54-46, 19 FR 8708, Dec. 18, 1954; CGFR 59-21, 24 FR 7196; Sept. 5, 1959; CGFR 60-17, 25 FR 2667, Mar. 30, 1960; CGFR 62-17, 27 FR 9047, Sept. 11, 1962]

### § 167.45-75 Fire extinguishers for emergency powerplants.

In compartments where emergency lighting and wireless units are located, two fire extinguishers approved by the Coast Guard or the Navy, of either carbon dioxide or dry chemical type, shall be permanently located at the most accessible points. In addition, two fire extinguishers of the above types, or foam type, shall be permanently located so as to be readily accessible to the emergency fuel tanks containing gasoline, benzine or naphtha.

[CGFR 58-29, 23 FR 6882, Sept. 6, 1958, as amended by CGD 95-028, 62 FR 51217, Sept. 30, 1997]

#### §167.45-80 Fire axes.

(a) All nautical school ships shall be provided with fire axes, as follows:

	Number of axes
Gross tons of nautical school ships:	
All not over 50 tons	1
All over 50 tons and not over 200 tons	2
All over 200 tons and not over 500 tons	4
All over 500 tons and not over 1,000 tons	6
All over 1 000 tons	9

(b) All fire axes shall be located so as to be readily found in time of need, shall not be used for general purposes, and shall be kept in good condition.

#### Subpart 167.50— Accommodations

#### §167.50-1 Hospital accommodations.

Each nautical school ship, which makes voyages of more than 3 days' duration between ports and carries 12 or more persons, shall be equipped with a compartment suitably separated from other spaces for hospital purposes, and such compartment shall have at least 1 bunk for every 12 persons allowed to be carried: *Provided*, That not more than 6 bunks shall be required in any case.

#### Subpart 167.55—Special Markings Required

### §167.55-1 Draft marks and draft indicating systems.

- (a) All vessels must have draft marks plainly and legibly visible upon the stem and upon the sternpost or rudderpost or at any place at the stern of the vessel as may be necessary for easy observance. The bottom of each mark must indicate the draft.
- (b) The draft must be taken from the bottom of the keel to the surface of the water at the location of the marks.
- (c) In cases where the keel does not extend forward or aft to the location of the draft marks, due to a raked stem or cut away skeg, the draft must be measured from a line projected from the bottom of the keel forward or aft, as the case may be, to the location of the draft marks.
- (d) In cases where a vessel may have a skeg or other appendage extending locally below the line of the keel, the draft at the end of the vessel adjacent to such appendage must be measured to a line tangent to the lowest part of such appendage and parallel to the line of the bottom of the keel.
- (e) Draft marks must be separated so that the projections of the marks onto a vertical plane are of uniform height equal to the vertical spacing between consecutive marks.
- (f) Draft marks must be painted in contrasting color to the hull.
- (g) In cases where draft marks are obscured due to operational constraints or by protrusions, the vessel must be fitted with a reliable draft indicating system from which the bow and stern drafts can be determined.

[CGD 89-037, 57 FR 41824, Sept. 11, 1992]

### §167.55-5 Marking of fire and emergency equipment.

Marking of fire and emergency apparatus, watertight doors, lifeboat embarkation stations and direction signs, stateroom notices, instructions for changing steering gears, etc., shall be carried out as follows:

(a) General alarm bell switch. The general alarm bell switch in the pilothouse or fire control station shall be clearly marked with lettering on a

brass plate or with a sign in red letters on suitable background: "General Alarm."

- (b) General alarm bells. General alarm bells shall be marked in not less than ½-inch red letters: "General Alarm—When Bell Rings Go to Your Station."
- (c) Steam, foam or CO<sub>2</sub> fire smothering apparatus. Steam, foam or CO<sub>2</sub> fire smothering apparatus shall be marked "Steam Fire Apparatus" or "Foam Fire Apparatus" or "CO<sub>2</sub> Fire Apparatus", as appropriate, in not less than 2-inch red letters. The valves of all branch piping leading to the several compartments shall be distinctly marked to indicate the compartments or parts of the nautical school ship to which they lead.
- (d) *Fire hose stations.* At each fire hose valve there shall be marked in not less than 2-inch red letters and figures "Fire Station 1," 2, 3, etc.
- (e) Emergency squad equipment. Lockers or spaces containing equipment for use of the emergency squad shall be marked "Emergency Squad Equipment." Lockers or spaces where oxygen or fresh air breathing apparatus is stowed shall be marked "Oxygen Breathing Apparatus" or "Fresh Air Breathing Apparatus," as appropriate.
- (f) Fire extinguishers. Each fire extinguisher shall be marked with a number and the location where stowed shall be marked in corresponding numbers in not less than 1-inch figures.
- (g) Watertight doors. Each watertight door shall be numbered in at least 2-inch letters and figures "W.T.D. 1," 2, 3, etc. The color of the marking shall be in contrast to the background. All watertight door remote hand-closing stations shall be marked in at least 2-inch letters and figures "W. T. D. 1," 2, 3, etc. The direction of operation of the lever or wheel provided to close or open the door at all watertight door remote hand-closing stations shall be marked. The color of the sign shall contrast with the background.
- (h) Instructions for changing steering gear. Instructions in at least ½-inch letters and figures shall be posted at each emergency steering station and in the steering engine room, relating in order, the different steps to be taken in changing to the emergency steering gear. Each clutch, gear wheel, level,

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valve, or switch which is used during the changeover shall be numbered or lettered on a brass plate or painted so that the markings can be recognized at a reasonable distance. The instructions shall indicate each clutch or pin to be "in" or "out" and each valve or switch which is to be "opened" or "closed" in shifting to any means of steering for which the vessel is equipped. Instructions shall be included to line up all steering wheels and rudder amidship before changing gears.

- (i) Rudder orders. At all steering stations, there shall be installed a suitable notice on the wheel or device or at such other position as to be directly in the helmsman's line of vision, to indicate the direction in which the wheel or device must be turned for "right rudder" and for "left rudder."
- (j) *Lifesaving appliances*. Each lifesaving appliance must be marked as required under subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 54-46, 19 FR 8708, Dec. 18, 1954; CGFR 60-36, 25 FR 10642, Nov. 5, 1960; CGD 73-24R, 39 FR 10139, Mar. 18, 1974; CGD 75-040, 40 FR 58454, Dec. 17, 1975; CGD 84-069, 61 FR 25311, May 20, 1996]

### Subpart 167.60—Certificates of Inspection

### §167.60-1 Issuance by Officer in Charge, Marine Inspection.

- (a) Every nautical school ship shall be inspected annually and if in the opinion of the Officer in Charge, Marine Inspection, the nautical school ship can be operated safely, he shall issue a certificate of inspection with the following indorsement: "Nautical School Ship" in lieu of the classification "Passenger vessel", "cargo vessel", etc.
- (b) When a nautical school ship, in the opinion of the Officer in Charge, Marine Inspection, may be navigated on the waters of any ocean or the Gulf of Mexico more than 20 nautical miles offshore, the route shall be designated on certificate of inspection as "Ocean".
- (c) When a nautical school ship, in the opinion of the Officer in Charge, Marine Inspection, may be navigated on the waters of any ocean or the Gulf

of Mexico 20 nautical miles or less offshore, the route shall be designated on the certificate of inspection as "Coastwise".

(d) Documented vessels of 500 gross tons or more, certificated for ocean or coastwise service, which do not comply with the requirements of SOLAS 74 for cargo vessels shall have their certificate of inspection endorsed "Domestic Voyages Only."

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGFR 69-127, 35 FR 9982, June 17, 1970; CGD 90-008, 55 FR 30663, July 26, 1990]

### §167.60-5 Period of time for which valid.

A certificate of inspection for any period less than one year shall not be issued, but nothing herein shall be construed as preventing the revocation or suspension of a certificate of inspection in case such process is authorized by law.

### §167.60-10 Exhibition of certificate of inspection.

On every nautical school ship, the original certificate of inspection shall be framed under glass and posted in a conspicuous place.

### § 167.60-15 Manning and persons allowed to be carried.

The Officer in Charge, Marine Inspection, shall specify in the Certificate of Inspection the minimum complement of officers and crew necessary for the safe navigation of the vessel and shall specify the total number of persons allowed to be carried.

[CGD 74-201, 41 FR 19647, May 13, 1976]

### Subpart 167.65—Special Operating Requirements

### §167.65–1 Emergency training, musters, and drills.

Onboard training, musters, and drills must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

[CGD 84-069, 61 FR 25311, May 20, 1996]

### §167.65-5 Flashing the rays of a searchlight or other blinding light.

Flashing the rays of a searchlight or other blinding light onto the bridge or into the pilothouse of any vessel under way is prohibited.

### §167.65-15 Routing instructions; strict compliance with.

All licensed masters, officers, and certificated seamen on nautical school ships must strictly comply with routing instructions issued by competent naval authority.

[CGD 95-027, 61 FR 26010, May 23, 1996]

#### §167.65-20 Unnecessary whistling.

Unnecessary sounding of a nautical school ship's whistle is prohibited within any harbor limits of the United States

#### §167.65-25 Steering gear tests.

On all nautical school ships making voyages of more than 48 hours' duration, the entire steering gear, the whistle, the means of communication and the signaling appliances between the bridge or pilothouse and engine room shall be examined and tested by an officer of the nautical school ship within a period of not more than 12 hours before leaving port. All nautical school ships making voyages of less than 48 hours' duration shall be so examined and tested at least once in every week. The fact and time of such examination and test shall be recorded in the log book.

#### §167.65-35 Use of auto pilot.

Except as provided in 33 CFR 164.15, when the automatic pilot is used in—

- (a) Areas of high traffic density;
- (b) Conditions of restricted visibility; and
- (c) All other hazardous navigational situations, the master shall ensure that—
- (1) It is possible to immediately establish human control of the ship's steering:
- (2) A competent person is ready at all times to take over steering control;
- (3) The changeover from automatic to manual steering and vice versa is made by, or under, the supervision of the officer of the watch.

[CFR 75-074, 42 FR 5964, Jan. 17, 1977]

#### §167.65-38 Loading doors.

- (a) The master of a vessel fitted with loading doors shall assure that all loading doors are closed watertight and secured during the entire voyage except that—
- (1) If a door cannot be opened or closed while the vessel is at a dock, it may be open while the vessel approaches and draws away from the dock, but only as far as necessary to enable the door to be immediately operated.
- (2) If needed to operate the vessel, or embark and disembark passengers when the vessel is at anchor in protected waters, loading doors may be open provided that the master determines that the safety of the vessel is not impaired.
- (b) For the purposes of this section, "loading doors" include all weather-tight ramps, bow visors, and openings used to load personnel, equipment, and stores, in the collision bulkhead, the side shell, and the boundaries of enclosed superstructures that are continuous with the shell of the vessel.
- (c) The master shall enter into the log book the time and door location of every closing of the loading doors.
- (d) The master shall enter into the log book any opening of the doors in accordance with paragraph (a)(2) of this section setting forth the time of the opening of the doors and the circumstances warranting this action.

[CGD 89-037, 57 FR 41824, Sept. 11, 1992]

#### §167.65-40 Draft.

The master of every nautical school ship over 50 gross tons shall, whenever leaving port, enter the maximum draft of his nautical school ship in the log book.

## §167.65-42 Verification of vessel compliance with applicable stability requirements.

(a) After loading and prior to departure and at all other times necessary to assure the safety of the vessel, the master shall determine that the vessel complies with all applicable stability requirements in the vessel's trim and stability book, stability letter, Certificate of Inspection, and Load Line Certificate, as the case may be, and then

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enter an attestation statement of the verification in the log book. The vessel may not depart until it is in compliance with these requirements.

(b) When determining compliance with applicable stability requirements the vessel's draft, trim, and stability must be determined as necessary and any stability calculations made in support of the determination must be retained on board the vessel for the duration of the voyage.

[CGD 89-037, 57 FR 41824, Sept. 11, 1992]

### §167.65-45 Notice to mariners; aids to navigation.

- (a) Officers are required to acquaint themselves with the latest information published by the Coast Guard and the U.S. Navy regarding aids to navigation, and neglect to do so is evidence of neglect of duty. It is desirable that nautical school ships navigating oceans and coastwise and Great Lakes waters shall have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.
- (b) Weekly Notices to Mariners (Great Lakes Edition), published by the Commander, 9th Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on the Great Lakes. These notices may be obtained free of charge, by making application to Commander, 9th Coast Guard District.
- (c) Weekly Notices to Mariners (Worldwide coverage) are prepared jointly by the U.S. Naval Oceanographic Office, the U.S. Coast and Geodetic Survey and the U.S. Coast Guard. They include changes in aids to navigation in assembled form for the 1st, 5th, 7th, Greater Antilles Section, 8th, 11th, 13th, 14th, and 17th Coast Guard Districts. Foreign marine information is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Washington, DC 20390, Branch Oceanographic Offices, U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

(d) As appropriate for the intended voyage, all nautical school ships must carry adequate and up-to-date—

- (1) Charts;
- (2) Sailing directions;
- (3) Coast pilots;
- (4) Light lists;
- (5) Notices to mariners;
- (6) Tide tables:
- (7) Current tables; and
- (8) All other nautical publications necessary. <sup>1</sup>

[CGFR 66-33, 31 FR 15298, Dec. 6, 1966, as amended by CGFR 75-074, 42 FR 5964, Jan. 31, 1977; CGD 95-028, 62 FR 51217, Sept. 30, 1997]

### §167.65-50 Posting placards of lifesaving signals.

On all vessels to which this subpart applies there must be readily available to the deck officer of the watch a placard containing instructions for the use of the life saving signals set forth in regulation 16, chapter V, of the International Convention for Safety of Life at Sea, 1974. These signals must be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

[CGD 95-027, 61 FR 26010, May 23, 1996]

### §167.65-60 Examination of boilers and machinery by engineer.

It shall be the duty of an engineer when he assumes charge of the boilers and machinery of a nautical school ship to examine the same forthwith and thoroughly, and if he finds any part thereof in bad condition, he shall immediately report the facts to the master, owner, or agent, and to the Officer in Charge, Marine Inspection, of the district, who shall thereupon investigate the matter and take such actions as may be necessary.

### § 167.65-65 Notice and reporting of casualty and voyage records.

The requirements for providing notice and reporting of marine casualties and for retaining voyage records are contained in part 4 of this chapter.

[CGD 84-099, 52 FR 47536, Dec. 14, 1987]

<sup>&</sup>lt;sup>1</sup>For United States vessels in one or on the navigable waters of the United States, see 33 CFR 164 33

#### §167.65-70 Reports of accidents, repairs, and unsafe boilers and machinery by engineers.

(a) Before making repairs to a boiler of a nautical school ship the engineer in charge shall report, in writing, the nature of such repairs to the nearest Officer in Charge, Marine Inspection, where such repairs are to be made.

(b) And it shall be the duty of all engineers when an accident occurs to the boilers or machinery in their charge tending to render the further use of such boilers or machinery unsafe until repairs are made, or when, by reason of ordinary wear, such boilers or machinery have become unsafe, to report the same to the Officer in Charge, Marine Inspection, immediately upon the arrival of the nautical school ship at the first port reached subsequent to the accident, or after the discovery of such unsafe condition by said engineer.

#### PART 168—CIVILIAN NAUTICAL **SCHOOL VESSELS**

#### Subpart 168.01—Authority and Purpose

168.01-1 Purpose of regulations.

#### Subpart 168.05—General Requirements

168.05-1 Application of passenger vessel inspection laws.

168.05-5 Application of passenger vessel inspection regulations.

168.05-10 Subdivision and stability. 168.05-15 Right of appeal.

#### Subpart 168.10—Definitions of Terms Used in This Part

168.10-1 Nautical school vessels.

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#### Subpart 168.15—Accommodations

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168.15-55 Screening. 168.15-60 Inspection.

AUTHORITY: 46 U.S.C. 3305, 3306; 49 CFR 1.46.

SOURCE: CGFR 52-43, 17 FR 9543, Oct. 18,

#### Subpart 168.01—Authority and **Purpose**

#### §168.01-1 Purpose of regulations.

1952, unless otherwise noted.

(a) The purpose of the regulations in this part is to set forth uniform minimum requirements for vessels, whether being navigated or not, which are used by or in connection with any civilian nautical school, except vessels of the Navy or Coast Guard.

#### Subpart 168.05—General Requirements

#### §168.05-1 Application of passenger vessel inspection laws.

(a) All laws covering the inspection of passenger vessels are hereby made applicable to all vessels or other floating equipment used by or in connection with any civilian nautical school, whether such vessels or other floating equipment are being navigated or not, except vessels of the Navy or Coast Guard.

#### §168.05-5 Application of passenger vessel inspection regulations.

Where the requirements are not covered specifically in this part, all the regulations applying to passenger vessels in subchapters E (Load Lines), F (Marine Engineering), H (Passenger Vessels), J (Electrical Engineering), K (Small Passenger Vessels Carrying More Than 150 Passengers Or With Overnight Accommodations For More Than 49 Passengers), P (Manning), Q (Specifications), T (Small Passenger Vessels), and W (Lifesaving Appliances and Arrangements) of this chapter are hereby made applicable to all vessels or other floating equipment used by or in connection with any civilian nautical school, whether such vessels or other floating equipment are being navigated or not, except vessels of the Navy or Coast Guard.

[CGD 84-069, 61 FR 25312, May 20, 1996, as amended at 63 FR 52816, Oct. 1, 1998]

EFFECTIVE DATE NOTES: At 63 FR 52816 Oct. 1, 1998, §168.05-5 was amended by removing the word "Accomadations" and adding in